

Application No. 10/088,856  
Amendment Dated 08/08/2006  
Reply to Office Action of 05/18/2006

### **Remarks/Arguments:**

Claims 1, 6, 7, 10, 12, 13, 18, 21, 22, 26, 29, 31, 32 and 37 are pending in the application.

In response to the Official Action Claims 1, 21 and 29 have been amended.

#### **Change of Examiner**

Applicants note the change of Examiner.

#### **Response to Amendment**

Applicants note:

1. The applicants' amendments and arguments are sufficient to overcome the 35 U.S.C. § 112, second paragraph rejections labeled paragraph 3 of the last office action, which are withdrawn.
2. The applicants' amendments and arguments are sufficient to overcome the 35 U.S.C. § 112, first paragraph rejection labeled paragraph 4 of the last office action, which is withdrawn.
3. The applicants' amendments and arguments are sufficient to overcome the 35 U.S.C. § 112, first paragraph rejection labeled paragraph 5 of the last office action, which is withdrawn.

#### **35 U.S.C. § 103**

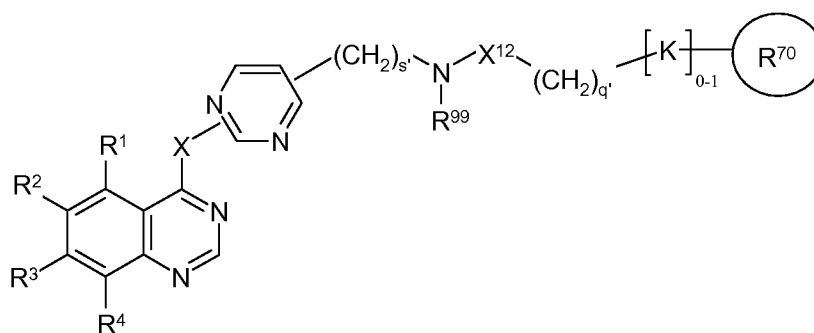
Claims 1, 6, 7, 10, 12, 13, 18, 21, 29, 31 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Myers et al., U.S. Patent No. 5,721,237.

Applicants are disappointed that the Examiner has maintained the 35 USC 103 rejection despite the argumentation presented in our last response. Applicants still believe the Examiner has used hindsight in extrapolating from the generic disclosures of US 5,721,237 (Myers) to arrive at the invention. Applicants maintain that the preferred generic scope and exemplified compounds in Myers are different from the compounds of our invention, lacking both pyrimidine rings and -NHCO/NHSO<sub>2</sub>- linked substituent groups.

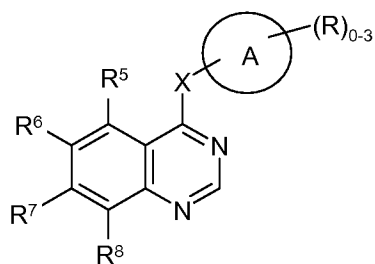
However, in order to expedite prosecution, Applicants have further amended the claims.

Claim 1 has been amended by deleting several groups from the definition of R<sup>70</sup> so that R<sup>70</sup> must now contain a cyclic group (C<sub>3-7</sub>cycloalkyl, cycloalkenyl or, from the definition of J, aryl, heteroaryl or heterocyclyl).

Claim 1 now provides compounds that can be represented as:



Myers provides compounds of formula (I'):



(I')

wherein A is:

*a substituted or unsubstituted mono- or bi-cyclic aryl, heteroaryl, cycloalkyl or heteroalkyl ring system of about 5 to about 12 atoms.....*

and R, when present, is selected from a range of relatively simple substituent R groups:

*R independently includes hydrogen, alkyl, phenyl, halophenyl, aralkyl, hydroxy, alkoxy, aryloxy, acyloxy, halo, haloalkyl, amino, mono- and di- alkylamino, acylamino, carboxy, amido, mono- and di- alkylamido, alkylthio, alkylsulfinyl, and alkylsulfonyl.*

The most prominent difference between our claim 1, as amended, and Myers is the requirement that the substituent para to X must now contain a -NHCO/NHSO<sub>2</sub>- linked cyclic group. This substituent group is structurally different to the substituent groups of Myers. There is nothing in Myers that could or would have motivated the skilled person to consider such a substituent.

Applicants acknowledge that Myers does claim an *acylamino* group listed in the definition of R, but as this is not a preferred group (see column 4 line 50-61) and is not exemplified, the skilled person would not have been motivated to chose it and modify it to include cyclic groups and thus arrive at the subject matter of amended claim 1.

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The Examiner is reminded of MPEP 2143.01: “ 2143.01 Suggestion or Motivation To Modify the References [R-3]” under “I. The prior art must suggest the desirability of the claimed invention” where it is stated:

*“In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification.” In re Linter, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).*

Applicants submit that there is no motivation provided by Myers to take the compounds disclosed in Myers and modify them. In particular there is no motivation provided by Myers to modify the compounds and arrive at the compounds of present invention.

In the absence of any indication in Myers that the “para substituent” can be modified and more particularly that it can become an -NHCO/NHSO<sub>2</sub>- linked cyclic group it follows that the compounds must be inventive over Myers.

Another prominent difference between claim 1 and Myers is the presence of a pyrimidinyl group. In addition to the use of a novel substituent group, the skilled person, starting from Myers, must also have selected pyrimidinyl from the list of 36 individually named rings as discussed in our last response. The Examiner has stated that Myers ‘*teaches explicitly that the “preferred” embodiments of monocyclic aryl and heteroaryl includes pyrimidinyl*’ and that ‘*pyrimidinyl is supported by Myers more specific definition of A*’. Applicants do not dispute that Myers teaches pyrimidinyl is a monocyclic heteroaryl ring and that A may be a substituted or unsubstituted monocyclic heterocyclic ring but Applicants disagree that this disclosure would prompt the skilled person to consider pyrimidine rings over any of the other 35 individually named rings provided by Myers. The Examiner is again reminded of MPEP 2143.01.

Myers also discloses that A may be a bicyclic heteroaryl ring such as benzofuryl or benzothienyl so what would drive the skilled person to consider pyrimidinyl over these options? In fact it is far more likely that the skilled person would heed the teaching of Myers at column 4 line 50-61 and chose that A to be *phenyl, pyridyl, thienyl, furyl, pyrazolyl, naphthyl, tetralinyl, 1,2,3,4-tetrahydroquinolinyl, indolyl, indolinyl, quinolinyl, tetrahydroquinolinyl, cyclohexyl, piperdinyl or piperazinyl*. As pyrimidinyl does not appear within the preferred generic scopes of column 4 or in any of the examples, and is not given any more weight than the other ring

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systems listed in columns 3 and 4, the Applicant cannot see how Myers suggests the desirability of the claimed invention. Our compounds must therefore be inventive over Myers.

Applicants request that the Examiner withdraws the §103(a) rejection in view of the amendments and arguments presented herein.

### **Election/Restrictions**

Claim 26 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

As previously stated, Applicants request rejoinder of the process claim, claim 26, finding basis in the MPEP at section 821.04(b) under Rejoinder of Process Requiring an Allowable Product where it is stated that:

*... if applicant elects a claim(s) directed to a product which is subsequently found allowable, withdrawn process claims which depend from or otherwise require all the limitations of an allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must depend from or otherwise require all the limitations of an allowable product claim for that process invention to be rejoined. Upon rejoinder of claims directed to a previously nonelected process invention, the restriction requirement between the elected product and rejoined process(es) will be withdrawn.*

Applicants believe that the present circumstances fulfill this set of criteria and respectfully request that the process claim, claim 26, is rejoined on allowance of claim 1.

### **Claim Rejections - 35 USC § 112**

Claims 1, 6, 7, 10, 12, 13, 18, 21, 22, 29, 31, 32 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the following reasons:

a) Claim 1 and claims dependent thereon are vague and indefinite in that it is not known what is meant by the definition of  $R^5$ , where  $R^5$  is **or** a group.

Applicants have corrected this typographical error.

b) Claim 1 and claims dependent thereon are vague and indefinite in that it is not known what is meant by the definition of D, which appears four times in the claim and the first definition is different from all the rest.

The first occurrence of "D" in group 3) of claim 1 has been relabeled as "D<sup>2</sup>" so that it is now distinct from "D" in the later groups.

c) Claim 1 and claims dependent thereon are vague and indefinite in that it is not known what is meant by the second definition of R<sup>38</sup>, R<sup>39</sup>, R<sup>40</sup>, R<sup>41</sup> and R<sup>42</sup>, which is different from the first.

"R<sup>38</sup>, R<sup>39</sup>, R<sup>40</sup>, R<sup>41</sup> and R<sup>42</sup>" occurring in group 13) of claim 1 and group 13') of claim 6 have been relabeled as "R<sup>38'</sup>, R<sup>39'</sup>, R<sup>40'</sup>, R<sup>41'</sup> and R<sup>42'</sup>" so that they are distinct from the occurrences in groups 5) and 9) of claim 1 and groups 5') and 9') of claim 6

d) Claim 6 recites the limitation "C<sub>1-4</sub>alkoxyC<sub>1-4</sub>alkyl" in the definition of R<sup>32</sup>. There is insufficient antecedent basis for this limitation in the claim.

"C<sub>1-4</sub>alkoxyC<sub>1-4</sub>alkyl" has been added to group 5) of claim 1 from claim 6 to provide antecedent basis for claim 6. Basis for this amendment is to be found in claim 6.

e) Claim 6 recites the limitation "-CONR<sup>34</sup>R<sup>35</sup> and -NR<sup>36</sup>COR<sup>37</sup>" in the definition of R<sup>33</sup>. There is insufficient antecedent basis for this limitation in the claim.

Applicants disagree with the Examiner "-CONR<sup>34</sup>R<sup>35</sup>-" and "-NR<sup>36</sup>COR<sup>37</sup>-" do have antecedent in claim 1 in -C(O)NR<sup>38</sup>R<sup>39</sup>, -NR<sup>40</sup>C(O)R<sup>41</sup> since R<sup>34</sup>, R<sup>35</sup>, R<sup>36</sup> and R<sup>37</sup> have the same definitions as R<sup>38</sup>, R<sup>39</sup>, R<sup>40</sup> and R<sup>41</sup>. However, to avoid any confusion Applicants have relabeled R<sup>34</sup>, R<sup>35</sup>, R<sup>36</sup> and R<sup>37</sup> in claim 6 to read R<sup>38</sup>, R<sup>39</sup>, R<sup>40</sup> and R<sup>41</sup>.

f) Claim 7 is vague and indefinite in that it is not known what is meant by the definition of R<sup>4</sup> where R<sup>4</sup> is C<sub>1</sub> to something alkoxy. The faxed copy is not visible.

R<sup>4</sup> in claim 7 should read C<sub>1-4</sub>alkoxy. Applicants have filed the present amendment by EFS and trust that the Examiner will find this copy more legible.

g) Claim 29 is vague and indefinite in that it is not known what is meant by the claim dependency, which is any one of claims 1, 7, 12, 18 or 34 6.

The claim dependency of claim 29 has been amended to "any one of claims 1, 7, 12, 18, 21 or 32".

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### Claim Objections

Claim 21 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim must be stated in the alternative. See MPEP § 608.01(n).

Definitions of q', s' and R<sup>70</sup> have been inserted into claim 21 so that it no longer needs to refer to claim 1 and depends only on claim 13.

Applicants have also corrected a few minor typographical errors.

The above amendments have been made without prejudice to Applicants right to prosecute any cancelled subject matter in a timely filed continuation application.

Applicants believe the application is in condition for allowance, which action is respectfully requested.

Although Applicants believe no fees are due, the Commissioner is hereby authorized to charge any deficiency in the fees or credit any overpayment to deposit account No. 50-3231, referencing Attorney Docket No. Z70598-1P US.

Although Applicants believe no excess claim fees are due, the Commissioner is hereby authorized to charge any deficiency in the fees or credit any overpayment to deposit account No. 50-3231, referencing Attorney Docket No. Z70598-1P US.

Respectfully submitted,

/Lucy Padget/

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